CLAIMS

1. A polypeptide selected from the group consisting of:
   a) a protein comprising an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
   b) a protein comprising an amino acid sequence of mature rsChBP-1 (SEQ ID NO: 6)
   c) a protein encoded by a nucleic acid molecule capable of hybridization to a nucleic acid sequence encoding a protein of a), or b), under stringent conditions, said nucleic acid molecule encoding a protein that binds a CC-chemokine;
   d) a protein at least about 70% identical in amino acid sequence to a protein of a), b), or c), and that binds a CC-chemokine;
   e) a fragment of a protein of a), b), c), or d), which fragment binds a CC-chemokine; and
   f) a fragment of a protein of a), b), c), or d), which fragment or protein has an immunomodulatory activity.

2. The polypeptide of claim 1, selected from the group consisting of:
   a) a protein having an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
   b) a protein having an amino acid sequence of mature rsChBP-1 (SEQ ID NO 6).
   c) a fragment of a protein of a), or b), which fragment binds a CC-chemokine;
   d) a fragment of a protein of a) or b), which fragment has an immunizing activity when administered to a mammal;
   e) an active mutant of a protein of a) or b), in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine;
   f) a fusion protein, which fusion protein comprises a protein of a), b), c), d), e) or f), operably linked to one or more amino acid sequences chosen amongst the following: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a heterodimeric protein hormone, a signal peptide, an export signal, and a tag sequence

3. An active mutant of a protein of claim 2, wherein the amino acid addition(s), deletion(s), or substitution(s) reduce the immunogenicity of said polypeptide when administered to a mammal.

4. The protein of any of the claims from 1 to 4, characterized in that said polypeptide is post-translationally modified.

5. The protein of claim 4, characterized in that said protein is glycosylated.

6. The protein of any one of claims 1 to 5, characterized in that said protein is in the form of an active fraction, precursor, salt, derivative, conjugate, or complex.

7. The protein of any one of claims 1 to 6, characterized in that said protein is PEGylated.

8. A nucleic acid molecule encoding a polypeptide of any one of claims 1 to 5.

9. A nucleic acid molecule of claim 8, selected from the group consisting of:
   a) a nucleic acid molecule encoding a protein comprising an amino acid sequence of rsCHBP-1(SEQ ID NO: 3);
   b) a nucleic acid molecule encoding a protein comprising an amino acid sequence of mature rsCHBP-1(SEQ ID NO: 5);
   c) a nucleic acid molecule capable of hybridization to a nucleic acid molecule of a) or b), under stringent conditions, and which encodes a protein that binds a CC-chemokine;
   d) a nucleic acid molecule encoding a protein at least about 70% identical in amino acid sequence to a protein of a) or b) and that binds a CC-chemokine;
   e) a nucleic acid molecule encoding a fragment of a protein encoded by a nucleic acid molecule of a), b), c) or d), which fragment binds a CC-chemokine; and
   f) a degenerate variant of a nucleic acid molecule of a), b), c), d) or e).

10. The nucleic acid molecule of claim 9, wherein said nucleic acid molecule encodes a protein selected from the group consisting of:

a) a protein having an amino acid sequence of rsChBP-1 (SEQ ID NO: 4);
b) a protein having an amino acid sequence of mature rsChBP-1 (SEQ ID NO 6);

c) a fragment of a protein of a) or b), which fragment binds a CC-chemokine;
d) a fragment of a protein of a) or b), which fragment has an immunizing activity when administered to a mammal;
e) an active mutant of a protein of a) or b), in which mutant one or more amino acid residues have been added, deleted, or substituted and which mutant binds a CC-chemokine; and
f) a fusion protein, which fusion protein comprises a protein of a), b), c), d) or e), operably linked to one or more amino acid sequences chosen amongst the following: an extracellular domain of a membrane-bound protein, an immunoglobulin constant region, a multimerization domain, a signal peptide, an export signal, and a tag sequence.

11. The nucleic acid molecule of any one of claims 1 to 10, characterized in that the CC-chemokine is CCL5 / RANTES, CCL3 / MIP-1 alpha, and/or CCL2 / MCP-1.

12. The nucleic acid molecule of any one of claims 8 to 11, wherein said molecule is a DNA molecule, particularly a cDNA molecule.

13. The nucleic acid molecule of claim 8, wherein said molecule comprises or is a DNA sequence of SEQ ID NO: 3 or 5.

14. An oligonucleotide that comprises a fragment of a nucleic acid according to claim 9 or 10, selected from the group consisting of oligonucleotides of at least about 20 nucleotides in length, oligonucleotides of at least about 30 nucleotides in length, and oligonucleotides of at least about 50 nucleotides in length.

15. A cloning or expression vector comprising a nucleic acid molecule according to any one of claims 8 to 13.

16. An expression vector of claim 15, further comprising a promoter operably associated to said nucleic acid molecule, in particular a tissue specific, a constitutive or an inducible promoter.

17. A host cell transformed or transfected with an expression vector according to claim 15 or 16.

18. A cell that has been genetically modified to produce a protein according to any one of claims 1 to 6.

19. A process for preparing a polypeptide, comprising culturing a host cell as claimed in claim 17 under conditions allowing or promoting expression.

20. The process of claim 18, further comprising purifying the protein.

21. The process of claim 18 or 19, further comprising formulating the protein for human administration.

22. A transgenic non-human animal expressing a CC-chemokine binding protein, characterized in that cells of said animal contain an isolated or recombinant nucleic acid molecule of any one of claims 8 to 13, or an expression vector of claim 15 or 16.

23. An antibody immunoreactive with a polypeptide of any one of claims 1 to 7.

24. An antibody of claim 23 which is a monoclonal antibody.

25. An antibody of claim 23 or 24 which is a chimeric, humanized or human antibody.

26. A pharmaceutical composition comprising a polypeptide of any one of claims 1 to 7 or a nucleic acid of any one of claims 8 to 16 or a cell of claims 17 or 18 and a pharmaceutically acceptable diluent or carrier.

27. A polypeptide as claimed in any one of claims 1 to 6, or a composition as claimed in claim 26, for use as a medicament.

28. Use of a polypeptide as claimed in any one of claims 1 to 6, or a composition as claimed in claim 22, for the manufacture of a medicament for the treatment or prevention of an immune or inflammatory response in a mammal.

29. A polypeptide as claimed in any one of claims 1 to 6, or a composition as claimed in claim 26, for use for the treatment or prevention of CC-chemokine related disorders in animals.

30. The use of claim 29, characterized in that the CC-chemokine is CCL5 / RANTES, CCL3 / MIP-1 alpha, or CCL2 / MCP-1.

31. The use of claim 29, wherein the disorder is an inflammatory disease, an autoimmune disease, an immune disease, an infection, an allergic disease, a cardiovascular disease, a metabolic disease, a gastrointestinal disease, a neurological disease, sepsis, a disease related to transplant rejection, or a fibrotic disease.

32. The use of a polypeptide as claimed in any one of claims 1 to 7 in the preparation of a medicament for the vaccination of a mammal against parasites, virus, or bacteria.

33. Use of a protein encoded by a nucleic acid molecule of any one of claims 8 to 13 as a medicament.

34. The use of a nucleic acid molecule of claim 8 in the preparation of a composition for regulating an immune or inflammatory response in a mammal.

35. A method for immunizing an animal against a blood-feeding ectoparasite, comprising administering to said animal a polypeptide as claimed in any one of claims 1 to 7.

36. A method of regulating an immune or inflammatory response in an animal in need thereof, comprising administering a therapeutically effective amount of a polypeptide as claimed in any one of claims 1 to 7 to said animal.

37. A method for the treatment or prevention of CC-chemokine related diseases, comprising the administration to a subject in need thereof of an effective amount of a polypeptide as claimed in any one of claims 1 to 7.

38. A kit for detecting a CC-chemokine or an analogue, a CC-chemokine binding protein or a receptor, the interaction of CC-chemokine and a CC-chemokine binding protein, or antagonists or agonists of said interaction, comprising a detecting reagent and at least a compound selected from the group consisting of:

a) A nucleic acid molecule of claim 8;

b) An oligonucleotide of claim 14;

c) A polypeptide as claimed in any one of claims 1 to ; and

d) An antibody of claim 23, 24 or 25.

39. A method for detecting *in vitro* or *in vivo* a CC-chemokine or an analogue, a CC-chemokine binding protein or a receptor, the interaction of CC-chemokine and a

CC-chemokine binding protein, or antagonists or agonists of said interaction, wherein said method comprises contacting a sample with a compound selected from the group consisting of:

a) A nucleic acid molecule of claim 8;

b) An oligonucleotide of claim 14;

c) A polypeptide as claimed in any one of claims 1 to 7; and

d) An antibody of claim 23, 24 or 25.